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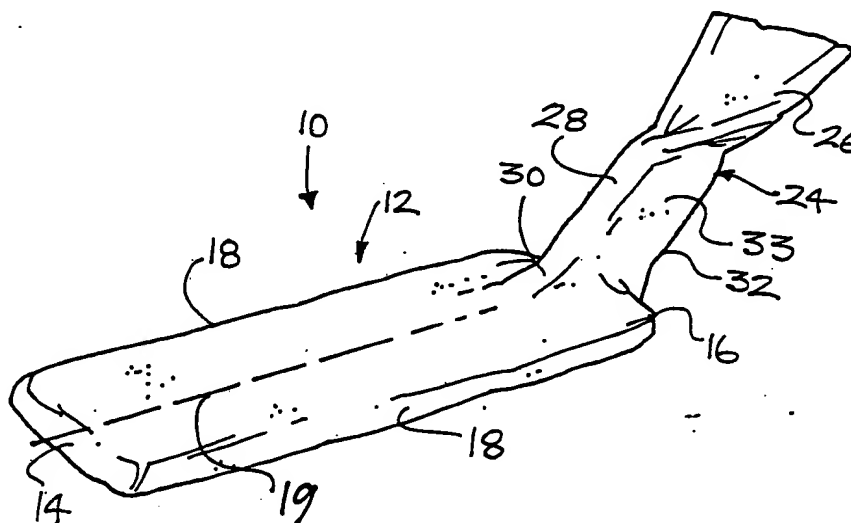
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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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(21) International Application Number: PCT/AU89/00476 (22) International Filing Date: 7 November 1989 (07.11.89) (30) Priority data: PJ 1329 7 November 1988 (07.11.88) AU (71)(72) Applicant and Inventor: MULLER, Beverley, Carol [AU/AU]; 5/17 Meyrick Way, Langford, W.A. 6155 (AU). (74) Agent: LORD, Kelvin, Ernest; 4 Douro Place, West Perth, W.A. 6005 (AU). (81) Designated States: AT, AU, BB, BE (European patent), BF (OAPI patent), BG, BJ (OAPI patent), BR, CF (OAPI patent), CG (OAPI patent), CH, CM (OAPI patent), DE, DK, FI, FR (European patent), GA (OAPI patent), GB, HU, IT (European patent), JP, KP, KR, LK, LU, MC, MG, ML (OAPI patent), MR (OAPI patent), MW, NL, NO, RO, SD, SE, SN (OAPI patent), SU, TD (OAPI pa- tent), TG (OAPI patent), US.		Published <i>With international search report.</i>

(54) Title: **SANITARY NAPKIN**

(57) Abstract

A sanitary napkin (10) characterised by a pad of absorbent material (12) having an end (16), and absorbent stub piece (24) attached to the pad (10) at the end (16) thereof, the pad (12) having an upper surface (20) arranged to be disposed over the pubic region of a user, in use, and the stub piece (24) extending away from the end (16) of the pad (12) so as to be located in a region between the buttocks (36) of a user.

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TITLE

SANITARY NAPKIN

FIELD OF THE INVENTION

The present invention relates to a sanitary napkin.

5 Typical sanitary napkins of the prior art consist of a pad of absorbent material placed over the vagina to absorb any menstrual discharge therefrom. However, such prior art sanitary napkins are prone to leakage due to fluid escaping from between the buttocks. This leads to subsequent

10 soiling of bed linen, overgarments and undergarments. The present invention provides a sanitary napkin which has less leakage than the prior art devices referred to above when in use.

SUMMARY OF THE INVENTION

15 In accordance with one aspect of the present invention there is provided a sanitary napkin comprising a pad of absorbent material having an end, an absorbent stub piece attached to the pad at the end thereof, the pad having an upper surface arranged to be disposed over the pubic region

20 of a user, in use, and the stub piece extending away from the end of the pad so as to be located in the region between the buttocks of a user.

In accordance with another aspect of the present invention there is provided a stub piece for use with a sanitary

25 napkin having a pad of absorbent material, the stub piece having an attachment means for attachment to the pad, the stub piece arranged to be located in the region between the buttocks of a user, in use.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will now be described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is an upper perspective view of a first embodiment
5 of a sanitary napkin in accordance with the present invention;

Figure 2 is a side view of the sanitary napkin of Figure 1;

Figure 3 is a top view of the sanitary napkin of Figure 1;

Figure 4, 5 and 6 are rear, front and bottom views

10 respectively of the sanitary napkin of Figure 1;

Figure 7 is a side view of the sanitary napkin of Figure 1 in place;

Figure 8 is an upper perspective view of a stub piece in accordance with the present invention;

15 Figure 9 is an upper perspective view of a second embodiment of a sanitary napkin in accordance with the present invention in an unfolded condition; and

Figure 10 is an upper perspective view of the sanitary napkin of Figure 9 in a folded condition.

20 DESCRIPTION OF THE INVENTION

Shown in Figures 1 to 6 of the accompanying drawings is a first embodiment of a sanitary napkin 10 comprising an elongated pad 12 of absorbent material having a first end 14, a second end 16 opposed sides 18 and a central
25 longitudinal axis 19.

The pad 12 has an upper surface 20 arranged to be disposed over the pubic region of a user, when in use. The pad 12 also has a lower surface 22, which may have attachment means such as adhesive strips (not shown) to enable

attachment to an undergarment.

An absorbent stub piece 24 is attached to the end 16 and has a tail portion 26, remote from the end 16, to facilitate manual holding thereof.

- 5 The stub piece 24 has an upper edge 28 extending between the tail portion 26 and the upper surface 20. The edge 28 meets the surface 20 at a curved section 30. The stub piece 24 also has a lower edge 32 which extends between the tail piece 26 and the lower surface 22. The depth of the
10 stub piece 24, as measured between the upper edge 28 and the lower edge 32, is about 2cm.

As shown, the stub piece 24 is generally of a parallelogram or rhomboid shape when viewed from the side as seen in Figure 2. It is to be appreciated that any convenient

- 15 shape may be used, for example a trapezoid. The stub piece 24 has sides 33 which are generally parallel to one another and which are generally parallel with the central longitudinal axis 19 of the pad 12. The width of the stub piece 24, as measured between the side 33, is about 2cm.

- 20 Further, the stub piece 24 preferably extends as shown, away from the end 16 of the pad 12. Still further, the stub piece 24 extends away from the end 16 and at an obtuse angle from the surface 20 so as to better conform to the user's anatomy. Even further, the width of the stub piece
25 24 is narrower than the end 16, of the pad 12.

The length of the stub piece 24, as measured between the curved section 30 and the junction of the stub piece 24 and the tail portion 26, is from 4cm to 10cm. Preferably, the length is about 7cm.

In use, as shown in Figure 7, the sanitary napkin 10 is disposed such that the upper surface 20, of the absorbent pad 12, is over the pubic region 34 of a user. The stub piece 24 is then located in a region between the users
5 buttocks 36. The pad 12 may then be secured, by the attachment means on the lower surface 22, to the user's undergarment.

In this configuration, the upper edge 28 is located in the region between the buttocks 36 and the curved section 30
10 helps the upper edge 28 and pad 12 conform or follow the user's anatomy more closely. The dimensions of width, length and depth of the stub piece 24, mentioned previously, have been found to not cause a user any undue discomfort whilst at the same time function effectively.
15 The absorbent pad 12 then collects any menstrual discharge and the stub piece 24 absorbs a proportion of any leakage not collected by the pad 12. Thus, the user's overgarments and undergarments and bed linen are freer from soiling, as compared to sanitary napkins of the prior art.
20 It is preferred that the tail piece 26 remain substantially free from any menstrual discharge. The tail portion 26 would thus be relatively clean and enable the user to grip the tail piece 26 for removal of the sanitary napkin 10 in a safe and hygienic manner.

25 As shown in Figure 8, the stub piece 24 may be supplied separately with an end 37 remote from the tail piece 26 and shaped to be fitted to the end 16 of a sanitary napkin. Like numerals denote like parts. The stub piece 24 of Figure 8, has similar dimensions to the stub piece 24, of

Figures 1 to 7.

For example, as shown in Figure 8, the end 37 may be formed with a V-shaped notch 38. The notch 38 contains an attachment means, such as an adhesive pad or strip 39, for
5 attachment to a conventional sanitary napkin. Thus, a normal sanitary napkin would have conferred on it the advantages afforded by the stub piece 24 as described hereinbefore.

In use, as shown in Figure 8 the adhesive pad or strip 39
10 is used to attach the stub piece 24 to the end 16, of the conventional pad 12. The stub piece 24 is preferably attached at an obtuse angle to the upper surface 20. This converts a normal sanitary napkin to a sanitary napkin in accordance with the present invention. The converted
15 sanitary napkin is then used in a similar manner as described hereinbefore. It is to be appreciated that the stub piece 24 need not be attached to the end 16, of the pad 12.

It is envisaged that the stub piece 24 would not need the
20 notch 38 or the adhesive pad 39 but would be substantially kept in place by the buttocks. This may occur when the stub piece 24 is placed between the user's buttocks prior to sleeping. In such a case, there is generally not enough movement of the buttocks to significantly dislodge the stub
25 piece 24 to cause undue leakage.

By supplying the stub piece 24 separately, a conventional sanitary napkin may easily and readily acquire the advantages described hereinbefore.

Shown in Figure 9 is a second embodiment of a sanitary

napkin 40 comprising a first pad of absorbent material 42 having a first end 44, a second end 46, opposed sides 48 and a central longitudinal axis 49. The pad 42 has an upper surface 50 arranged to be disposed over the pubic region of a user, when in use. The pad 42 has a lower surface which may have attachment means such as adhesive strips to enable attachment to an undergarment.

Adjacent the end 46 is a second pad of absorbent material 52 having a first end 54 adjacent the end 46 and a second end 56 spaced from the end 54. The pad 52 has opposed sides 58. The pad 42 and the pad 52 are retained in juxtaposed relation by means of an overall fabric cover of well known type. The pad 52 is thinner than the pad 42 for reasons to be described.

Typically, the length of the pad 52, as measured between the ends 54 and 56 is from 4cm to 10cm. Preferably, the length is about 7cm. The width of the pad 52, as measured between the sides 58 is about 5cm. The thickness of the pad 52, as measured between the upper and lower surfaces is about 1cm.

The pad 52 has a central longitudinal axis 60 which is substantially co-linear with the axis 49 when in an unfolded condition as shown in Figure 9.

For reasons to be described, the width of the pad 52, as measured between the sides 58, is less than the width of the pad 42.

Attached to the end 56 is a tail portion 62, similar to the tail portion 26.

In use, it is intended that the sanitary napkin 40 be

supplied in the unfolded condition as shown in Figure 9. This results in the napkins 40 being relatively flat and easy to pack.

5 The pad 52 is first pivoted upwardly about the ends 46 and 54, as indicated by the arrow 64 in Figure 10. The sides 58 are then rotated or rolled toward each other in opposite directions, as indicated by the arrows 66. This achieves a folded condition, as shown in Figure 10.

10 This results in a stub piece 68 which is similar to the stub piece 24.

The sanitary napkin 40 is then used in a similar manner to the sanitary napkin 10. The pad 42 is disposed over the pubic region of a user and the stub piece 68 is located in a region between the user's buttocks. The pad 52 is of
15 such a thickness and width that when it is folded to form the stub piece 68, the stub piece 68 does not cause the user any undue discomfort. The dimensions of length, width and thickness of the pad 52, mentioned previously, have been found to result in a stub piece 68 which is both not
20 unduly uncomfortable and effective.

Modifications and variations such as would be apparent to a skilled addressee are deemed within the scope of the present invention.

Claims:-

1. A sanitary napkin characterised by a pad of absorbent material having an end, absorbent stub piece attached to the pad at the end thereof, the pad having an upper surface
5 arranged to be disposed over the pubic region of a user, in use, and the stub piece extending away from the end of the pad so as to be located in a region between the buttocks of a user.
2. A sanitary napkin according to Claim 1, characterised
10 in that the stub piece extends away from the end of the pad at an obtuse angle to the upper surface of the pad.
3. A sanitary napkin according to claim 1, characterised in that the stub piece has an upper edge which is located in the region between the buttocks of the user, in use, and
15 meets the pad at a curved section.
4. A sanitary napkin according to any one of the preceding claims, characterised in that the pad has a central longitudinal axis and the stub piece is generally aligned with the central longitudinal axis, has sides which are
20 generally parallel to one another and which are generally parallel to the central longitudinal axis.
5. A sanitary napkin according to any one of the preceding claims, characterised in that the stub piece has a tail portion, remote from the end of the pad, to facilitate
25 removal of the sanitary napkin.
6. A sanitary napkin according to any one of the preceding claims, characterised in that the pad has a lower surface which has attachment means to enable the sanitary napkin to be attached to an undergarment.

7. A sanitary napkin according to any one of the preceding claims, characterised in that the stub piece is of narrower width than the end of the pad.
8. A sanitary napkin according to any one of the preceding
5 claims, characterised in that the stub piece is from 4cm to 10cm in length.
9. A sanitary napkin according to claim 8, characterised in that the stub piece is about 7cm in length.
10. A sanitary napkin according to any one of the
10 preceding claims, characterised in that the stub piece is about 2cm in width.
11. A sanitary napkin according to any one of the preceding claims, characterised in that the stub piece is about 2cm in depth.
- 15 12. A sanitary napkin according to claim 1 characterised by a first pad of absorbent material having an end, and a second pad of absorbent material having an end, the second pad being thinner and narrower than the first pad and the said ends of the pads being in juxtaposed relation to one
20 another.
13. A stub piece for use with a sanitary napkin having a pad of absorbent material, characterised in that the stub piece is arranged to be located in the region between the buttocks of a user, in use.
- 25 14. A stub piece for a sanitary napkin according to claim 13 characterised in that the stub piece has an attachment means for attachment to the pad.
15. A stub piece according to any one of claims 13 or 14, characterised in that the pad has a central longitudinal

axis and the stub piece is generally aligned with the central longitudinal axis, in use, and has sides which are generally parallel to one another and which are generally parallel to the central longitudinal axis, in use.

5 16. A stub piece according to any one of claims 13 to 15, characterised in that the stub piece has a tail portion to facilitate removal of the sanitary napkin.

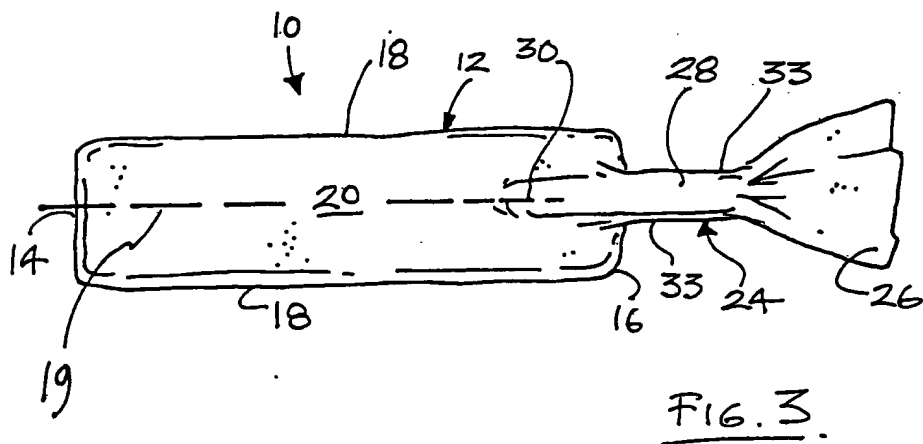
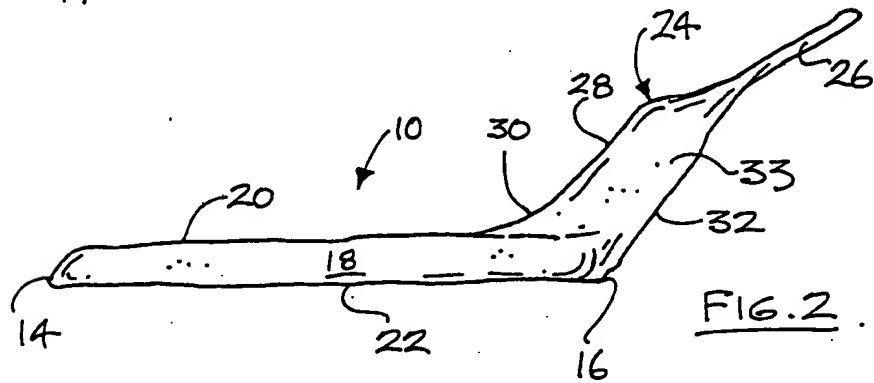
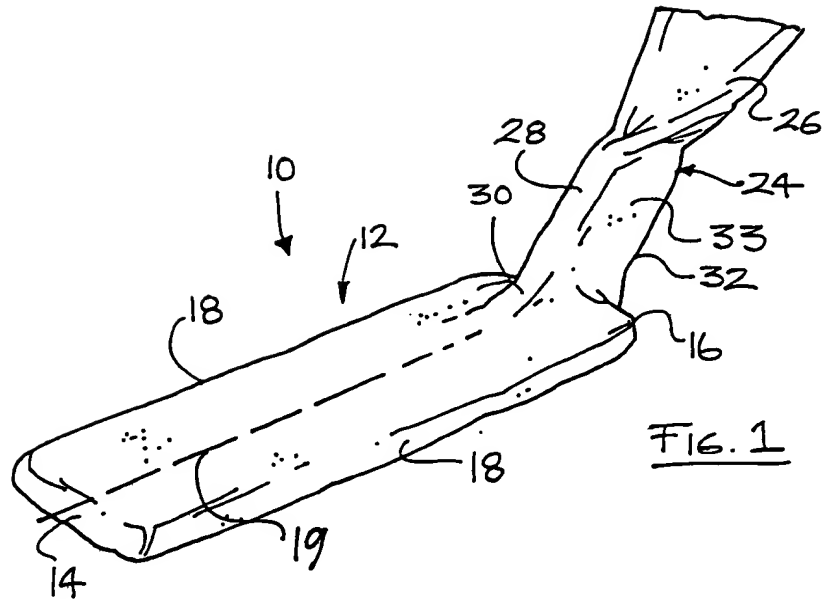
17. A stub piece according to any one of claims 13 to 16, characterised in that the stub piece has an end shaped to
10 fit an end of the sanitary napkin.

18. A stub piece according to any one of claims 13 to 17 characterised in that the stub piece is from 4cm to 10cm in length.

19. A stub piece according to claim 18, characterised in
15 that the stub piece is about 7cm in length.

20. A stub piece according to any one of claims 13 to 19 characterised in that the stub piece is about 2cm in width.

21. A stub piece in accordance to any one of claims 13 to 20, characterised in that the stub piece is about 2cm in
20 depth.



SUBSTITUTE SHEET

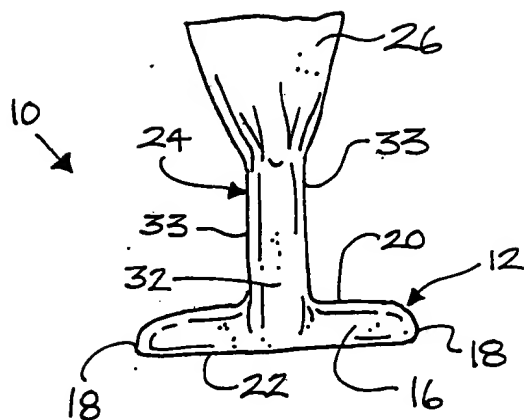


FIG. 4.

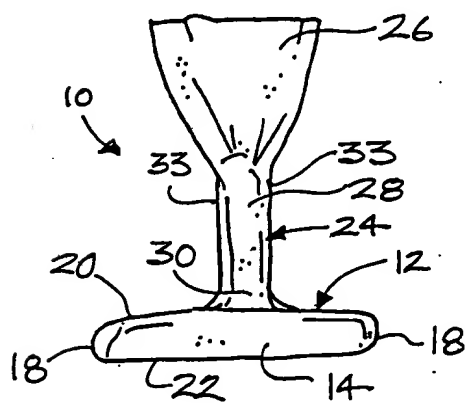


FIG. 5.

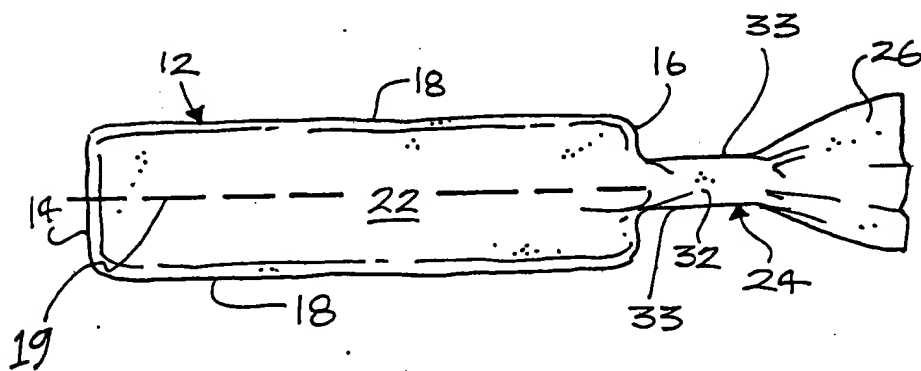
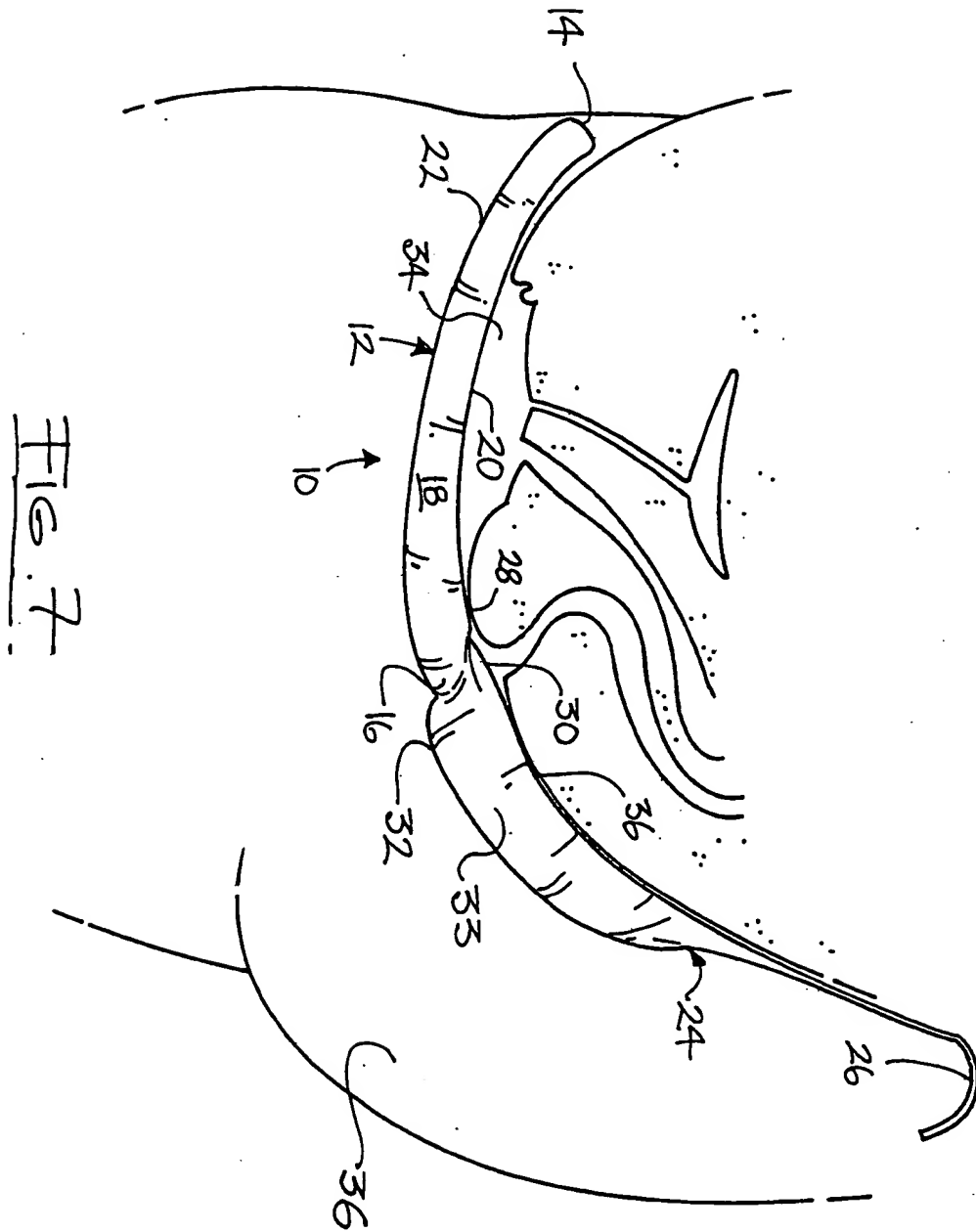


FIG. 6.



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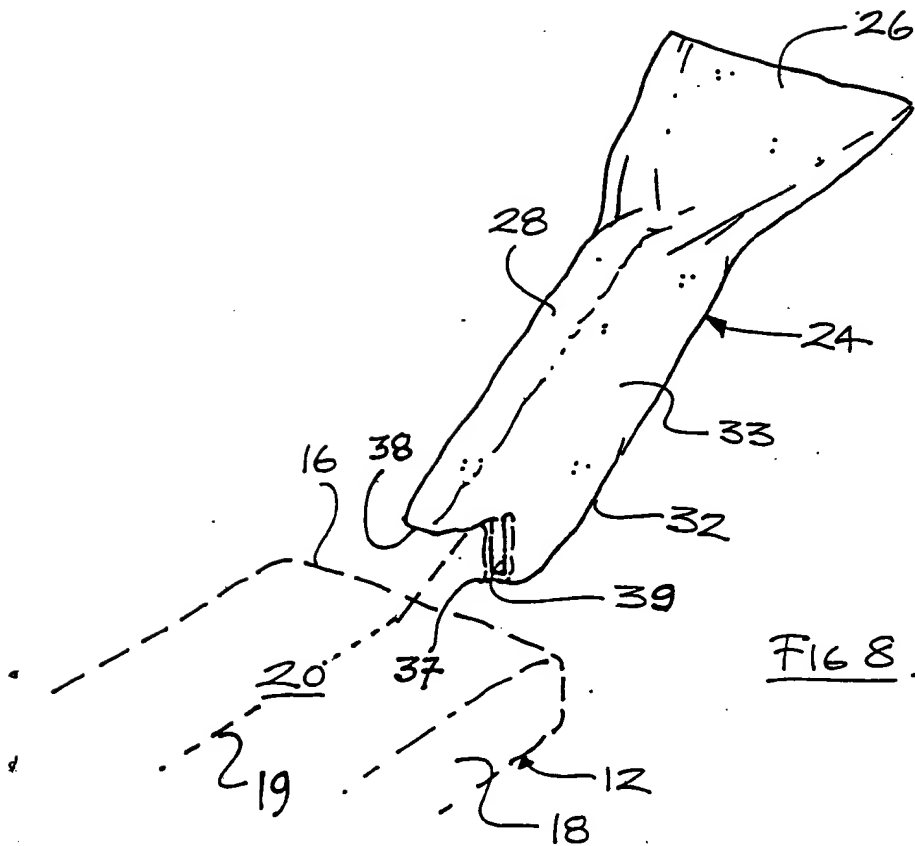
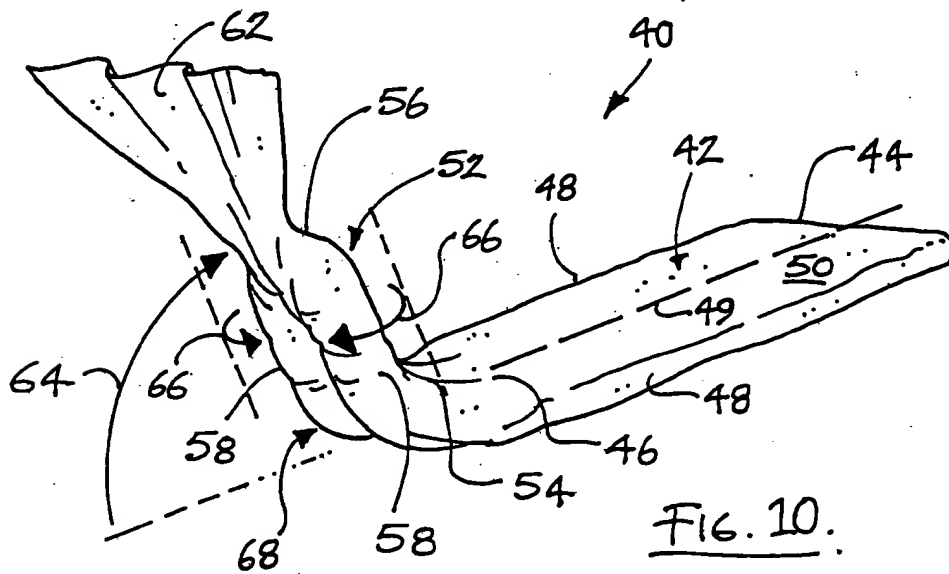
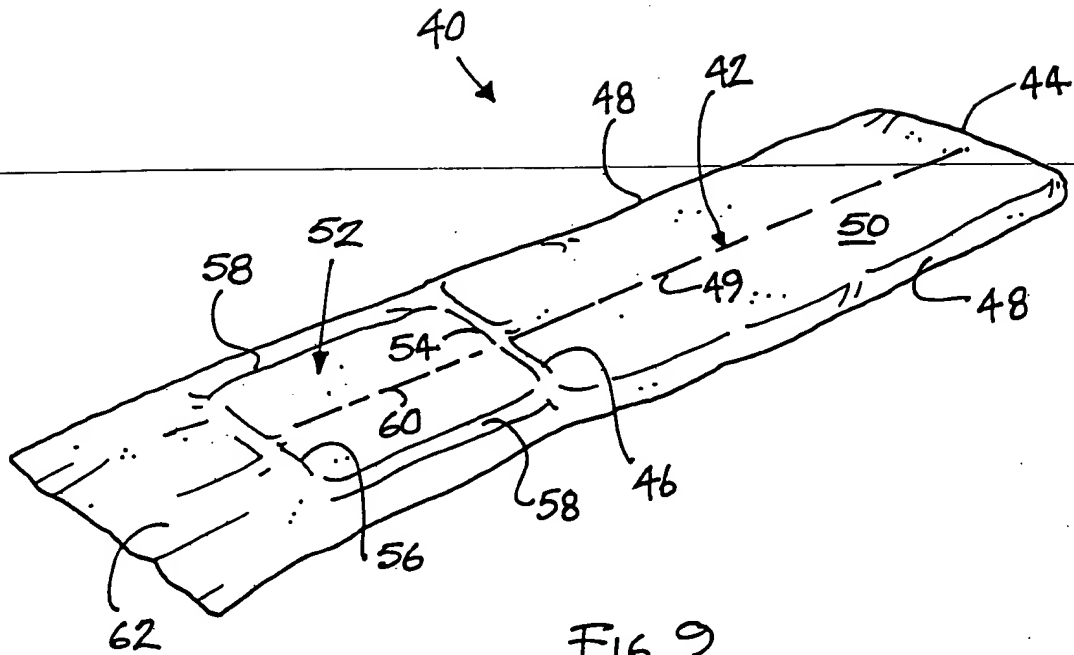


FIG 8.



I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) 6

According to International Patent Classification (IPC) or to both National Classification and IPC
Int. Cl.⁴ A61F 13/16

II. FIELDS SEARCHED

Minimum Documentation Searched 7

Classification System I

Classification Symbols

IPC

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Documentation Searched other than Minimum Documentation
to the extent that such Documents are included in the Fields Searched 8

AU: IPC as above

III. DOCUMENTS CONSIDERED TO BE RELEVANT 9

Category*	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages 12	Relevant to Claim No 13
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X	US,A, 3491759 (SAMUEL) 27 January 1970 (27.01.70)	(1-20)
X	US,A, 2852026 (KARR) 16 September 1958 (16.09.58)	(1-20)
X	GB,A, 2048075 (CANAL) 10 December 1980 (10.12.80)	(1-20)
X,Y	US,A, 4182335 (MATRULLO) 8 January 1980 (08.01.80)	(13-20)
X,Y	US,A, 3420235 (HARMON) 7 January 1969 (07.01.69)	(13-20)

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IV. CERTIFICATION

Date of the Actual Completion of the
International Search
16 February 1990 (16.02.90)

Date of Mailing of this International
Search Report

22/02/90

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III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)

Category*	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No
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Y	US,A, 4623341 (ROEDER) 18 November 1986 (18.11.86)	(1-20)
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Y	US,A, 2662527 (JACKS) 15 December 1953 (15.12.53)	(1-20)

ANNEX TO THE INTERNATIONAL SEARCH REPORT ON
INTERNATIONAL APPLICATION NO. PCT/AU 89/00476

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Patent Document Cited in Search Report	Patent Family Members			
GB 204802E	AT 1040/80	BE 881918	CH 644262	
	DE 3006775	FR 2449444	JP 55141240	
	NL 8001112	SE 8001468		
US 41823E	GB 2001535			

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